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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,927

02/26/2008

Philippe Ceulemans

4021-9US

2334

30448

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06/23/2009

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EXAMINER

CHIN, HUI H

ART UNIT

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1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,927	<b>Applicant(s)</b> CEULEMANS ET AL.	
	<b>Examiner</b> HUI CHIN	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 19-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/17/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is in reference to the Preliminary Amendment, filed on 1/17/2006.

Claims 1-18 have been canceled. Claims 19-41 are now pending.

#### ***Specification***

1. The disclosure is objected to because of the following informalities:

Paragraph [0031]: "compostion" is suggested to be changed to -- composition --.

Appropriate corrections are required.

#### ***Claim Objections***

2. Claim 19 is objected to because of the following informalities:

Claim 19, line 16: "CH2" is suggested to be changed to -- CH<sub>2</sub> --.

Claims 19-34 and 37-41: "characterized in that" is suggested to be changed to -- wherein --.

Appropriate corrections are required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “molecular weight of between 0.05 – 100 billion Dalton” is unclear. Does it mean 0.05 Dalton to 100 billion Dalton or 0.05 billion Dalton to 100 billion Dalton?

5. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation “any one of claims 1-11” causes indefiniteness because it depends on the cancelled claims.

6. Claims 31, 38, 39, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “preferably” makes the claim unclear.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by “such as” and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

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exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 29 recites the broad recitation 0.05 wt.%, and the claim also recites 0.001 wt.% which is the narrower statement of the range/limitation; claim 29 recites the broad recitation 5 wt.%, and the claim also recites 1 wt.% which is the narrower statement of the range/limitation; claim 29 recites the broad recitation 1 wt.%, and the claim also recites 0.5 wt.% which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 19-23, 25-31, and 33-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duerr (US Patent 5,512,618) in view of Spencer et al. (US 2002/0033116).

Duerr discloses a liquid adhesive composition for manufacturing corrugated paperboard, consisting essentially of: an effective amount of a starch whose chemical

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composition is characterized by having a substantially straight-chain configuration; a suspension-enhancing agent which includes a synthetic liquid polymer component that is a copolymer based upon an acrylic-acid monomer and an aromatic monomer substituted with an acrylate compound, and includes an effective amount of the alcohol-ester coalescing agent 2,2,4-trimethyl-1,3-pentanediol mono(2-methylpropanoate), and which polymer component is emulsifiable in the composition, and is capable of enhancing suspension of such starch; water; and with the overall composition including between 0.5%-1.0% by weight of the suspension-enhancing agent, between 21.5-25.5% by weight of the starch, and between 73.5-78% by weight of the water (claim 1).

However, Duerr is silent on a specific crosslinking agent.

Spencer et al. disclose an erasable ink comprising shear-thinning additives include high molecular weight homo- and copolymers of acrylic acid crosslinked with polyalkenyl polyether such as allylpentaerythritol to provide a crosslinked acrylic copolymer with shear-thinning properties and better dispersion (claim 1, [0048], [0052]). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use this specific crosslinking agent in the composition with the expected success.

The limitations of claim 23 can be found in Duerr at claim 1, where it discloses the acrylic acid.

The limitations of claim 24 can be found in Duerr at claim 1, where it discloses the acrylate compound.

Claim 27 is an inherent property.

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The limitations of claim 28 can be found in Duerr at claim 1, where it discloses the starch.

The limitations of claim 29 can be found in Duerr at Table 1, where it discloses the 0.5 to 1% of acrylic acid.

The limitations of claim 30 can be found in Duerr at claim 1 and Table 1, where it discloses the 21.5 – 25.5% by weight of the starch, 73.5 - 78% by weight of the water, 0.2 - 0.5% by weight of sodium hydroxide, and 0.2 - 0.5% by weight of boric acid.

The limitations of claim 31 can be found in Duerr at claim 2, where it discloses the process.

The limitations of claims 33-37 can be found in Duerr at col. 4, lines 64-67, col. 5, lines 1-25, where it discloses the process for making the paper board and card board.

The limitations of claim 38 can be found in Duerr at Table 1, where it discloses the composition.

The limitations of claim 39 can be found in Duerr at Table 1, where it discloses the 21.5-25.5% by weight of starch.

The limitations of claims 40 and 41 can be found in Duerr at Table 1, where it discloses the 1.8 % by weight of boric acid in the solid premix.

9. Claims 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duerr (US Patent 5,512,618) in view of Spencer et al. (US 2002/0033116) as applied to claims 19-23, 25-31, and 33-41, and further in view of Charbonneau et al. (US Patent 4,404,246).

The disclosure of Duerr in view of Spencer et al. is adequately set forth in paragraph 8 and is incorporated herein by reference.

However, Duerr in view of Spencer et al. is silent on a specific alkyl acrylate.

Charbonneau et al. disclose a tape comprising a carrier web and a pressure-sensitive adhesive layer comprising a copolymer of acrylic acid ester such as isooctyl acrylate and at least one copolymerizable monoethylenic monomer to provide excellent adhesion and holding power and experiences no observable deterioration even after years of storage (claim 1, col. 1, lines 17-19, col. 3, lines 45-46). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use this specific alkyl acrylate in the composition with the expected success.

10. Claims 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duerr (US Patent 5,512,618) in view of Spencer et al. (US 2002/0033116) as applied to claims 19-23, 25-31, and 33-41, and further in view of Columbus et al. (US Patent 5,322,880).

The disclosure of Duerr in view of Spencer et al. is adequately set forth in paragraph 8 and is incorporated herein by reference.

However, Duerr in view of Spencer et al. is silent on a specific clarification agent.

Columbus et al. disclose an adhesive gel comprising: (1) about 70% to 93% of water; (2) about 5% to 25% of a partially hydrolyzed polyvinyl alcohol; (3) about 0.5% to 3% of a water soluble plasticizer for the polyvinyl alcohol; (4) a water soluble defoamer which reads on clarification agent in an amount sufficient to prevent air bubbles from



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destroying the clarity of the gel to provide an adhesive gel for porous and semiporous substrates such as paper, card board, cloth and wood (claim 1, col. 1, lines 11-13). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use this specific clarification agent in the composition with the expected success.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUI CHIN whose telephone number is (571)270-7350. The examiner can normally be reached on Monday to Friday; 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

/HC/